ABSTRACT

The present invention is for a receiver incorporated into User Equipment (UE) or base stations of a code division multiple access (CDMA) communication system. The UE and base station are in communication with one of the plurality of base stations and receives a communication signal through the receiver. The communication signal is correlated using a delay locked code tracking loop, that estimates and tracks a channel delay. The tracking loop comprises a reference code generator and an interpolator for generating timed signal versions in response to said communication. A timed signal correlator, included in the tracking loop for correlating at least two of the timed signal versions with the code reference signal. The result of the correlation is used for generating an error signal. An automatic power normalization loop (APN), that is responsive to the interpolator, generates a power error signal that normalizes the error signal through a normalization circuit.